



TI processing at CMS

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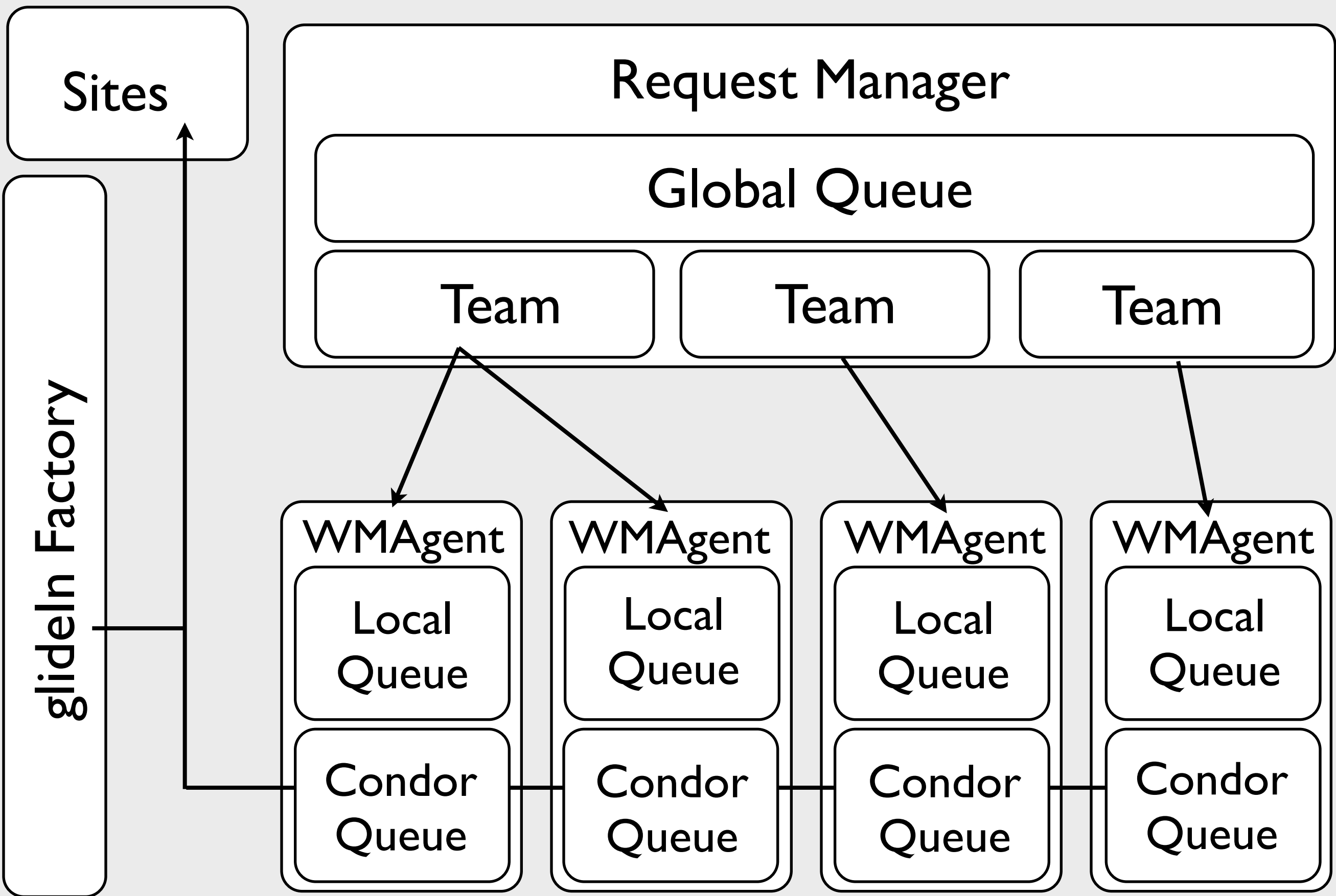


TI Coordinator

- **TI coordinators oversee processing of data and MC at TI sites**
 - Resource planning
 - Support to requestors as they inject work
 - Preparing and assigning workflows
 - Recover problematic workflows
 - Report any software problems uncovered
 - Announce output datasets
 - General dataset book-keeping
 - Maintain overview of workload
 - Identify and resolve problems affecting any part of the processing infrastructure

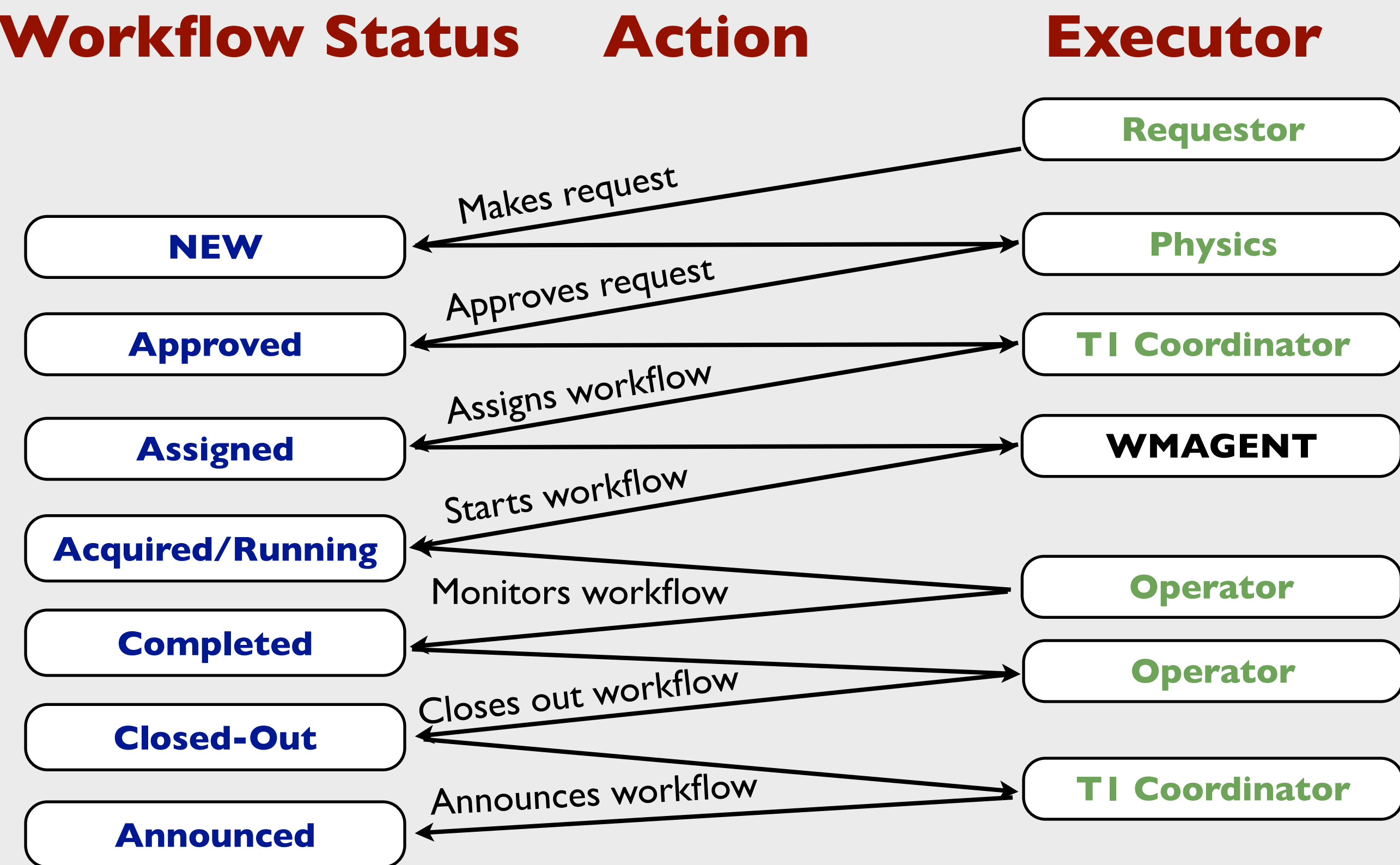
Processing structure

- Work is injected into the **Request Manager**
- It is assigned to one of the **WMAgents** via a **team**
 - A team for each purpose: tl, mc and relval
- The WMAgents submit jobs to the sites



Actions

- Actions taken depending on the status of a workflow as it progresses to completion.



Request Manager

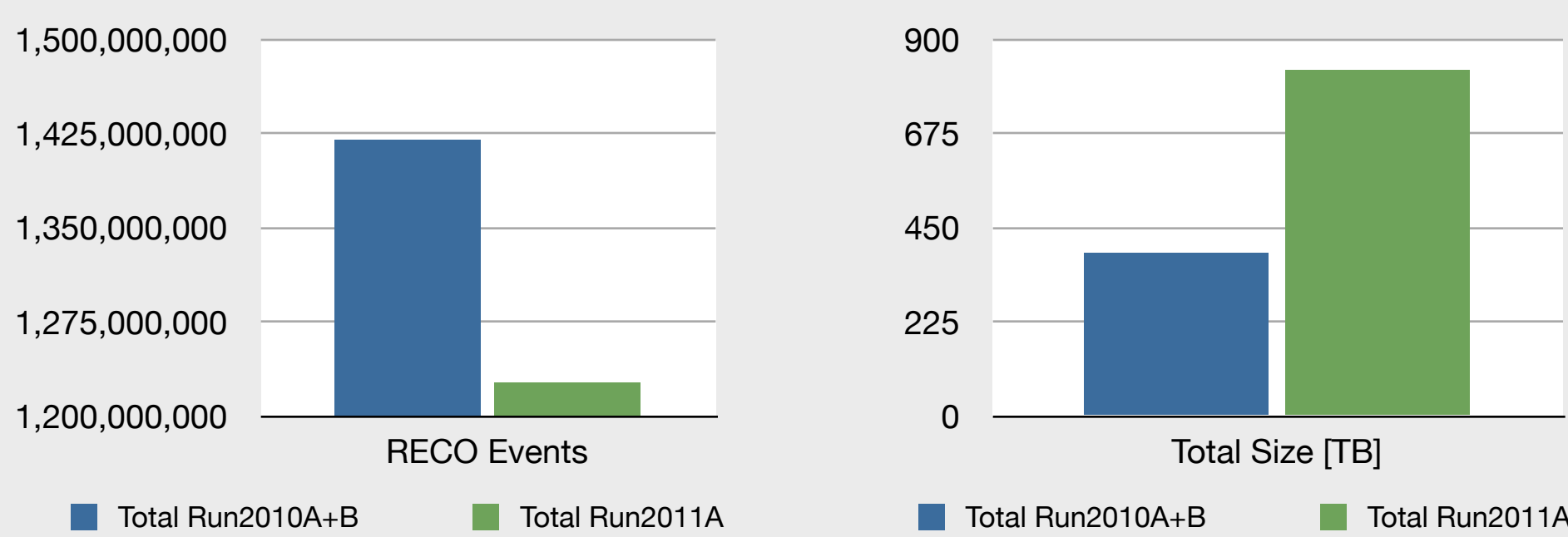
- **All workflow actions and monitoring take place in the Request Manager**
 - **Actions**
 - Approve workflows
 - Assign workflows
 - Close-out workflows
 - Announce workflows
 - **Monitoring**
 - Percentage of workflow injected
 - Percentage completion of injected jobs
 - Workflow status
 - Site(s) where the jobs are running
 - Number of jobs in each state
 - Status of the WMAgents

Agent Location	status	acdc
cmssrv94.fnal.gov:9999	ok	acdc
vocms121.cern.ch:9999	ok	acdc
vocms202.cern.ch:9999	down	acdc

request name	status	type	queued	cool off	pending	running	success	failure	summary	job completion	queue injection	SW	GQ	LQ
linacre_HIQ-Fall11_R1-00348_T1_IT_CNAF_MSS_111119_005729	acquired	ReDigi	0	0	0	0	0	0	No Jobs	0.0% (0/0)	0.0% (0/203)	T1_IT_CNAF	GQ	N/A
linacre_2011B_442p2_DataReprocessingIcalNZS_111119_010333	acquired	ReReco	0	0	0	0	0	0	No Jobs	0.0% (0/0)	0.0% (0/21333)	T1_US_FNAL	GQ	N/A
linacre_2011B_442p2_DataReprocessingPhotonHad_111119_010349	running	ReReco	27	0	12	482	6352	0	summary	92.4% (8352/8976)	52.0% (4331/8331)	T1_TW_ASGC	GQ	LQ
linacre_2011B_442p2_DataReprocessingPhoton_111119_010347	running	ReReco	131	0	0	2858	9043	724	summary	78.5% (8767/11207)	100.0% (8331/8331)	T1_DE_KIT	GQ	LQ
linacre_BTIV-Fall11_R1-00005_T1_IT_CNAF_MSS_111119_001313	running	ReDigi	265	0	0	493	893	6	summary	54.2% (890/1600)	80.9% (1657/2020)	T1_IT_CNAF	GQ	LQ
linacre_2011B_442p2_DataReprocessingSingleElectron_111119_010350	running	ReReco	105	0	497	0	0	0	summary	0.0% (0/602)	10.9% (908/8331)	T1_UK_RAL	GQ	LQ
linacre_2011B_442p2_DataReprocessingDoubleElectron_111119_010327	running	ReReco	0	0	1263	611	378	0	summary	18.8% (378/2023)	44.4% (3695/8331)	T1_FR_CCIN2P3	GQ	LQ
linacre_2011B_442p2_DataReprocessingSingleMu_111119_010352	running	ReReco	66	0	8	491	1031	0	summary	84.6% (1031/1506)	15.1% (1258/8331)	T1_ES_PIC	GQ	LQ
linacre_2011A_442p2_DataReprocessingTauPlusX_111119_005720	running	ReReco	121	0	74	900	1237	3	summary	62.8% (1240/1949)	30.1% (5850/19449)	T1_US_FNAL	GQ	LQ
linacre_2011B_442p2_DataReprocessingJet_111119_010336	running	ReReco	8	0	574	527	14836	1	summary	93.0% (14837/15948)	100.0% (8331/8331)	T1_FR_CCIN2P3	GQ	LQ

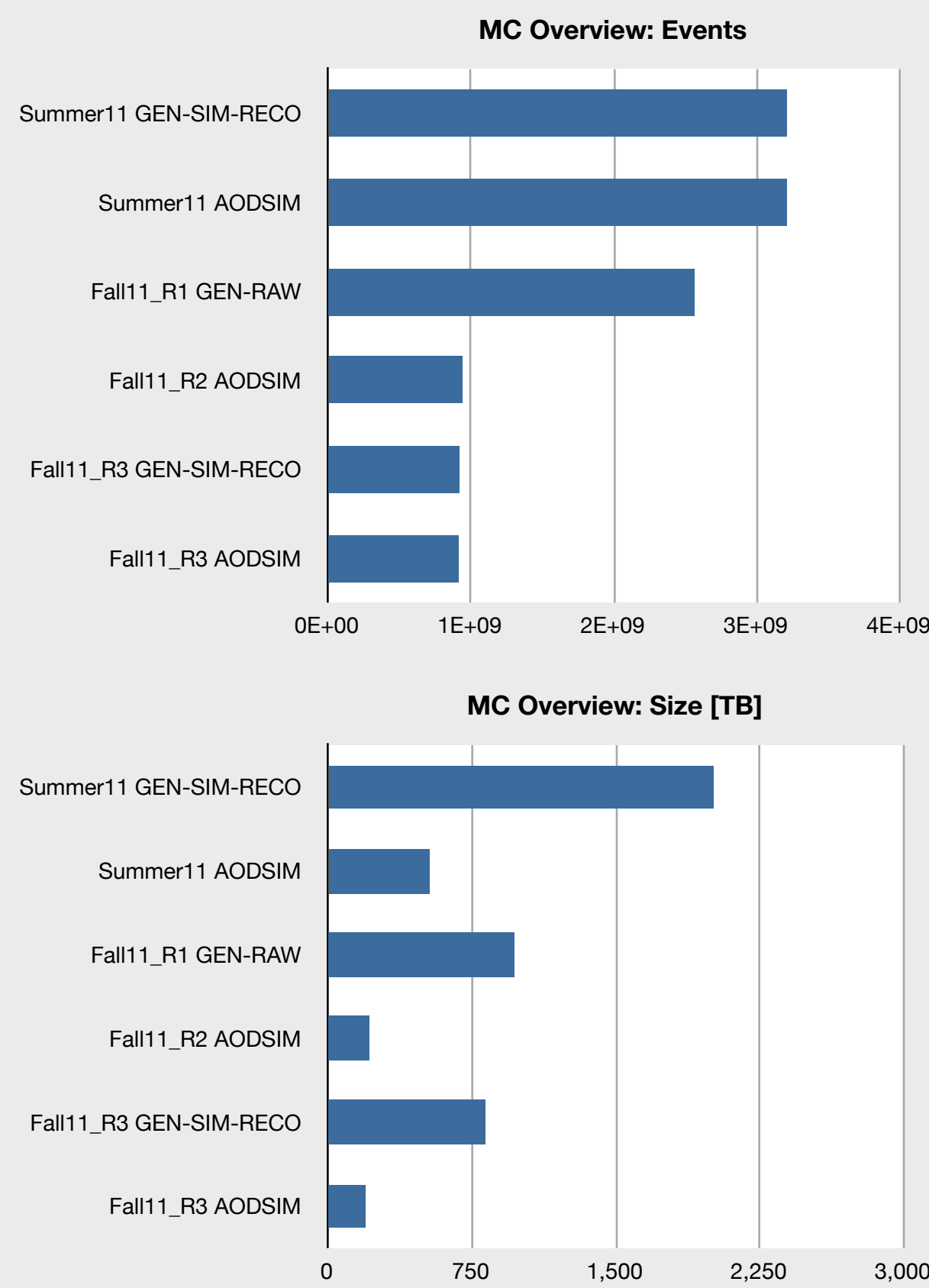
Recent campaigns

- **Data:**
 - Complete reco pass for 2011A+B currently running



MC: AODSIM, GEN-SIM-RECO and DQM

- 2200 Summer11 samples, 2.6B events
- 1000 Fall11 samples so far in both CMSSW 4_2 and CMSSW 4_4: 1B events each



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Improvements

- **System still under development**
- **November 2011: Request Manager was moved to cmsweb**
 - Improved monitoring
 - Improved reliability
 - Improved security
 - More automation
- **At the same time we moved to WMAgent 0.8.x**
 - Numerous bug fixes